0 3 CD



OIPE

RAW SEQUENCE LISTING

DATE: 02/11/2002

PATENT APPLICATION: US/09/972,758

TIME: 09:29:31

Input Set : A:\277084004.ST25.txt

Output Set: N:\CRF3\02112002\1972758.raw

```
ENTERED
 3 <110> APPLICANT: Case Western Reserve University
 4
         Montano, Monica
 5
         Wittman, Bryan
 7 <120> TITLE OF INVENTION: Suppressors of Human Breast Cancer Cell Growth
 9 <130> FILE REFERENCE: 27708/04004
11 <140> CURRENT APPLICATION NUMBER: US 09/972758
12 <141> CURRENT FILING DATE: 2001-10-05
14 <150> PRIOR APPLICATION NUMBER: US 60/238,187
15 <151> PRIOR FILING DATE: 2000-10-05
17 <160> NUMBER OF SEQ ID NOS: 2
19 <170> SOFTWARE: PatentIn version 3.0
21 <210> SEQ ID NO: 1
22 <211> LENGTH: 1080
23 <212> TYPE: DNA
24 <213> ORGANISM: Homo sapiens
26 <400> SEQUENCE: 1
27 atggccgagc cattcttgtc agaatatcaa caccagcctc aaactagcaa ctgtacaggt
                                                                          60
29 gctgctgctg tccaggaaga gctgaaccct gagcgccccc caggcgcgga ggagcgggtg
                                                                        120
31 cccgaggagg acagtaggtg gcaatcgaga gcgttccccc agttgggtgg ccgtccgggg
                                                                        180
33 ccggaggggg aagggagcct ggaatcccaa ccacctccct tgcagaccca ggcctgtcca
                                                                        240
35 gaatetaget geetgagaga gggegagaag ggeeagaatg gggaegaete gteegetgge
                                                                        300
37 ggcgacttee egeegeegge agaagtggaa eegaegeeeg aggeegaget getegeeeag
                                                                        360
39 cettgtcatg acteegagge cagtaagttg ggggeteetg eegeaggggg egaagaggag
                                                                        420
41 tggggacage agcagagaca getggggaag aaaaaacata agagacgeee gtecaagaag
                                                                        480
43 aageggeatt ggaaacegta etacaagetg aactgggaag agaagaaaaa gttegaegag
                                                                        540
45 aaacagagee ttegagette aaggateega geegagatgt tegeeaaggg eeageeggte
                                                                        600
47 gegeectata acaccaegea gtteeteatg gatgateaeg accaggagga geeggatete
                                                                        660
49 aaaaccggcc tgtactccaa gcgggccgcc gccaaatccg acgacaccag cgatgacgac
                                                                        720
51 ttcatggaag aagggggtga ggaggatggg ggcagcgatg ggatgggagg ggacggcagc
                                                                        780
53 gagtttetge agegggaett eteggagaeg taegageggt accaeaegga gageetgeag
                                                                        840
55 aacatgagca agcaggagct catcaaggag tacctggaac tggagaagtg cctctcgcgc
                                                                        900
57 atggaggacg agaacaaccg gctgcggctg gagagcaagc ggctgggtgg cgacgacgc
                                                                        960
59 cgtgtgcggg agctggagct ggagctggac cggctgcgcg ccgagaacct ccaqctqctq
                                                                       1020
61 accgagaacg aactgcaccg gcagcaggag cgagcgccgc tttccaagtt tggagactag
                                                                       1080
64 <210> SEQ ID NO: 2
65 <211> LENGTH: 359
66 <212> TYPE: PRT
67 <213> ORGANISM: Homo sapiens
69 <400> SEQUENCE: 2
71 Met Ala Glu Pro Phe Leu Ser Glu Tyr Gln His Gln Pro Gln Thr Ser
```

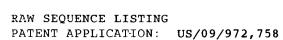
10

74 Asn Cys Thr Gly Ala Ala Ala Val Gln Glu Leu Asn Pro Glu Arg

25

75

5



DATE: 02/11/2002 TIME: 09:29:31

Input Set : A:\277084004.ST25.txt

Output Set: N:\CRF3\02112002\1972758.raw

77 78	Pro	Pro	Gly 35	Ala	Glu	Glu	Arg	Val 40	Pro	Glu	Glu	Asp	Ser 45	Arg	Trp	Gln
80 81	Ser	Arg 50	Ala	Phe	Pro	Gln	Leu 55	Gly	Gly	Arg	Pro	Gly 60	Pro	Glu	Gly	Glu
	_	Ser	Leu	Glu	Ser	Gln	Pro	Pro	Pro	Leu		Thr	Gln	Ala	Cys	
84		_				70					75					80
	Glu	Ser	Ser	Cys		Arg	Glu	Gly	Glu		Gly	Gln	Asn	Gly		Asp
87			_		85					90		_		_	95	_
	Ser	Ser	Ala	_	Gly	Asp	Phe	Pro		Pro	Ala	Glu	Val		Pro	Thr
90				100					105					110	_	
	Pro	Glu		Glu	Leu	Leu	Ala		Pro	Cys	His	Asp		Glu	Ala	Ser
93			115			_	_	120				_	125	_	_	_
	Lys		Gly	Ala	Pro	Ala		Gly	Gly	Glu	Glu		Trp	Gly	Gln	Gln
96		130		_			135		•			140				
		Arg	GIn	Leu	Gly	Lys	Lys	Lys	His	Arg	_	_	Pro	Ser	Lys	_
99		_		_	_	150	_	_	_	_	155				_	160
102				_	165	5	_	_	_	170)	-			175	
	Lys	Phe	Asp			Glr	Ser	Leu			Ser	Arg	Ile	e Arg	j Ala	Glu
105				180		•			185					190		
		. Phe			Gl _y	/ Glr	Pro			Pro	Tyr	Asn			Glr	n Phe
108			195					200					205			
			_	Asp	His	: Asp			ı Glu	Pro) Asp		-	Thi	Gly	Leu
111		210					215					220				
	_		. Lys	Arg	Ala			Lys	Ser	Asp	_		Ser	Asp) Asp	Asp
	225					230		3			235			_ •		240
		Met	. GIu	ı G1u			' GIu	ı Glu	Asp			Ser	Asp	GI?		Gly
117		_		~	245		_	~ 1	_	250		_			255	
	GLY	Asp	GIY			Phe	e Leu	i Gir			Phe	ser	. Glu			Glu
120	_	_		260		_	_	~ 7	265		_	_	~ 1	270		_,
	_	Tyr			GIU	Ser	. Leu			Met	. Ser	. ras			ı Let	ı Ile
123		a 1.	275		a 1	_	a 1	280		-	_	_	285		_	~1
	ьys			. Leu	GIU	ı Leu			Cys	Leu	Ser			. GIU	ı Asp	Glu
126		290		_	_	-	295		_	_	_	300		_	_	
			Arg	Leu	Arg			Ser	. rAa	Arg		_	GLY	Asp	Asp	Ala
	305			a 1	.	310		a 1		_	315		_		~ 1	320
	arg	val	Arg	GIU			Leu	ı GIU	Leu			Leu	Arg	ALa		Asn
132	T ~·-	Q1	т	т	325		7		т -	330		. 01	<i>a</i> 1		335	
	ьeu	GIN	ьeu			GIU	Asn	ı GIU			arg	GIN	GIN		_	Ala
135	Dwa	T 0:-	C	340			. 3 ~		345	1				350	,	
	PLO	ьeu			PHE	Gly	ASP)		,						
138			355													

VERIFICATION SUMMARY

DATE: 02/11/2002

PATENT APPLICATION: US/09/972,758

TIME: 09:29:32

Input Set : A:\277084004.ST25.txt

Output Set: N:\CRF3\02112002\I972758.raw